

PROJECT DESCRIPTION  
GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING SIGNAL AT THE INTERSECTION OF TOLLGATE ROAD AND CONSTANT FRIENDSHIP BLVD DURING THE MAINTENANCE OF TRAFFIC FOR STAGES 2, 3 AND 4. THIS PHASE OF MOT INVOLVES THE INSTALLATION OF THE ULTIMATE MAST ARM TRAFFIC SIGNALS WIRED TO THE PROPOSED CONTROLLER AT THE ULTIMATE LOCATION OF THE INTERSECTION IN HARFORD COUNTY.

INTERSECTION OPERATION

THE EXISTING POLE MOUNTED CABINET AND CONTROLLER WILL BE REMOVED AND A NEW BASE MOUNTED CABINET AND CONTROLLER SHALL BE INSTALLED AT THIS LOCATION. THE INTERSECTION WILL CONTINUE TO OPERATE IN A FULL ACTUATED MODE USING 4 NEMA PHASES. VIDEO DETECTION SHALL BE INSTALLED. THE LEFT TURN PHASE ALONG WESTBOUND TOLLGATE ROAD SHALL OPERATE WITH EXCLUSIVE LEFT TURN PHASING. PRIOR TO COMPLETION OF THIS PROJECT THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT 410-398-7631 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR SHALL PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND TELEPHONE NUMBER.

SPECIAL NOTES

1. THE FOLLOWING CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

PROJECT CONTACTS:

MR. RANDALL SCOTT, ASSISTANT DISTRICT ENGINEER-TRAFFIC  
PHONE: (410) 321-2781  
MR. STEVE MARCISZEWSKI, ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (410) 321-2761  
MR. MICHAEL PASQUARIELLO, UTILITY ENGINEER  
PHONE: (410) 321-2841  
MR. RICHARD L. DAFF, SR., CHIEF TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630  
MR. EDWARD RODENHIZER, SIGNAL OPERATIONS CHIEF  
PHONE: (410) 787-7650  
MR. EUGENE BAILEY, SIGN OPERATIONS MANAGER  
PHONE: (410) 787-7676

MS. ROXANE MUKAI, TRAFFIC MANAGER  
MARYLAND TRANSPORTATION AUTHORITY  
PHONE: (410) 288-8484

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE MARYLAND STATE HIGHWAY ADMINISTRATION.

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
900000	BASE MOUNTED (SIZE 6) CABINET AND CONTROLLER (MSHA SPECIFICATION) WITH VIDEO DETECTION INTERFACE EQUIPMENT FOR 1-4 CAMERAS	EA	1
973023	SHEET ALUMINUM SIGNS CONSISTING OF D-3(1) (VAR. X 16") MAST ARM MOUNT, DUAL FACE EA 1 D-3(1) (VAR. X 16") MAST ARM MOUNT EA 1 R3-5(L) (30"x36") MAST ARM MOUNT EA 3 R3-5(R) (30"x36") MAST ARM MOUNT EA 2 R10-11 (24"x24") MAST ARM MOUNT EA 1 R10-4(MOD) (9"x15") POLE MOUNT SIGN TO READ "PUSHBUTTON TO CROSS CONSTANT FRIENDSHIP BLVD" EA 2	EA	65

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
114245	24 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKING	LF	80
203030	TEST PIT EXCAVATION	CY	2.5
800000	AUDIBLE TACTILE PEDESTRIAN PUSH BUTTON STATION	EA	2
800000	AUDIBLE TACTILE PEDESTRIAN PUSH BUTTON BASE	EA	1
800000	CONTROL CABLE 400 FOOT VIDEO DETECTION CAMERA TO CONTROLLER	EA	2
800000	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT	LS	1
800000	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION	EA	2
800000	REROUTE EXISTING MICRO-LOOP PROBE LEAD-IN CABLE	LF	300
801004	CONCRETE FOR SIGNAL FOUNDATION	CY	12
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	300
805118	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED	LF	220
805125	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	520
805135	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	40
805140	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	20
807202	METERED SERVICE PEDESTAL	EA	1
810601	NON-INVASIVE DETECTOR, 500 FOOT LEAD IN CABLE	EA	1
811001	ELECTRICAL HANDHOLE	EA	6
813015	INSTALL OVERHEAD SIGN	SF	65
816001	VIDEO DETECTION CAMERA	EA	2
818004	10 FOOT BREAKAWAY PEDESTAL POLE	EA	1
818021	STEEL POLE WITH TWIN 50 FOOT MAST ARM	EA	1
818052	STEEL POLE WITH A SINGLE 70 FOOT MAST ARM	EA	1
821003	BREAKAWAY BASE SUPPORT SYSTEM FOR SIGNAL STRUCTURE	EA	1
831010	250 WATT HPS LAMP AND LUMINAIRE	EA	2
837001	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH	EA	3
860284	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	29
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	250
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	400
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	1000
861116	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)	LF	330
861117	ELECTRICAL CABLE - 3 WIRE (NO. 4 AWG)	LF	20
866101	10 FOOT LIGHTING ARM ON SIGNAL STRUCTURE	EA	1
866103	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE	EA	1
871202	INSTALL CONTROLLER AND CABINET - BASE MOUNT	EA	1

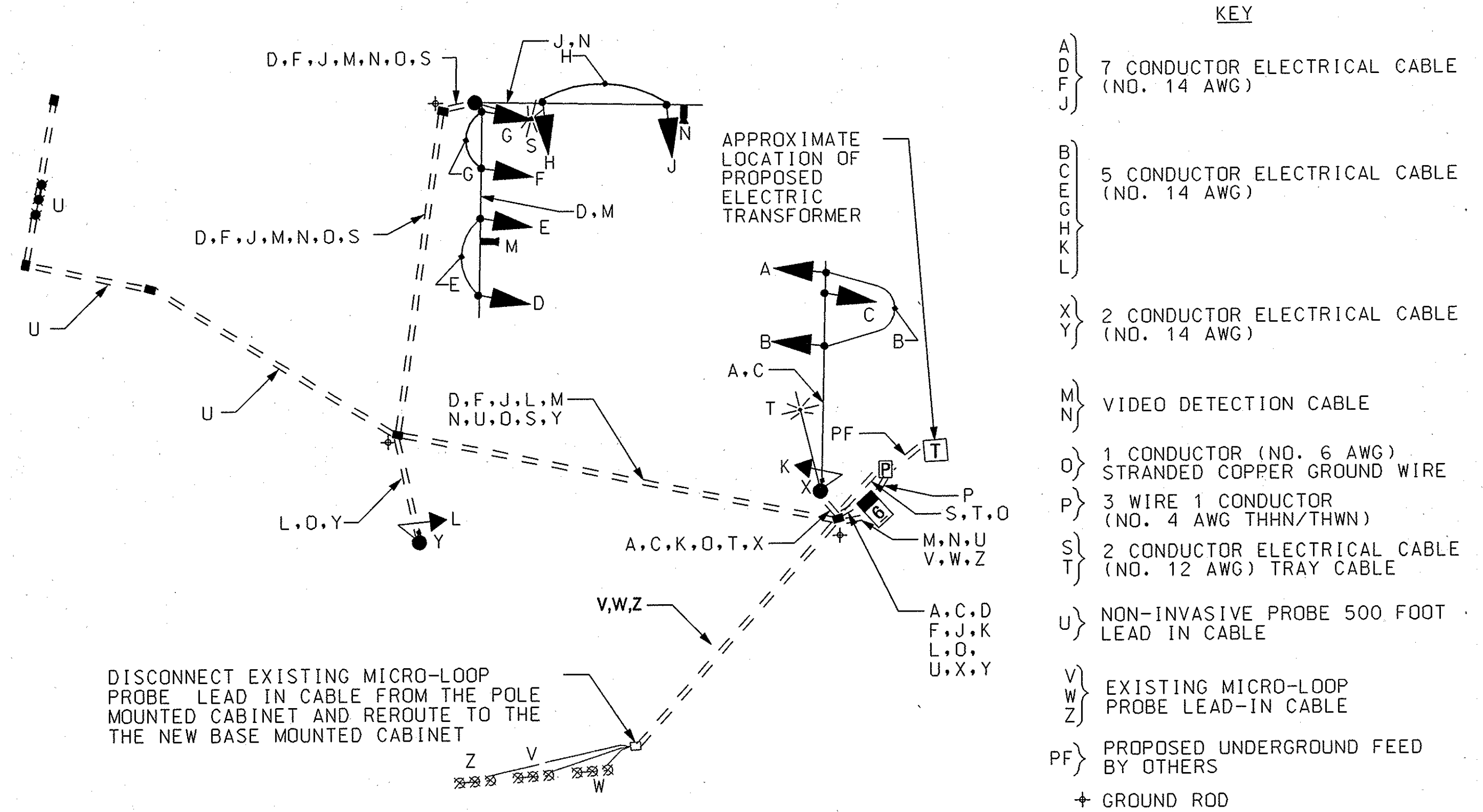
NOTE:

THE CONTRACTOR SHALL DELIVER AUDIBLE TACTILE PEDESTRIAN PUSH BUTTON STATION AND BASE UNIT TO THE SHA SIGNAL SHOP PRIOR TO LOCATION INSTALLATION FOR PROGRAMMING. SHA FORCES SHALL INSTALL AUDIBLE TACTILE PEDESTRIAN PUSH BUTTON BASE UNIT IN THE CABINET.

C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLY DRIVE, HANOVER, MARYLAND 21076. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
900000	CONTROLLER AND ITS ASSOCIATED AUXILIARY EQUIPMENT	EA	1

WIRING DIAGRAM



PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11
	(R)	(R)	(R)	(R)	(R)	(R)	(R)	(R)	(R)	(R)	(R)
	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)
	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)
PHASE 2 AND 5	R	R	4G-	4G-	4G-	G	G	R	R	BAGGED	
2 AND 5 CHANGE	R	R	4Y-	4Y-	4Y-	G	G	R	R		
PHASE 2 AND 6	G	G	4R-	4R-	4R-	G	G	R	R		
2 AND 6 CHANGE	Y	Y	4R-	4R-	4R-	Y	Y	R	R		
PHASE 4	R	R	4R-	4R-	4R-	R	R	G	G	BAGGED	
4 CHANGE	R	R	4R-	4R-	4R-	R	R	Y	Y		
FLASHING OPERATION	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R		

MOT-STAGES:2-4



STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION

TOLLGATE ROAD AT CONSTANT FRIENDSHIP BLVD  
IMPROVEMENTS TO I-95 AND MD 24 INTERCHANGE  
ABINGDON, MARYLAND

GENERAL INFORMATION SHEET

SCALE	N.T.S.	DATE	06/12/06	CONTRACT NO.	KH-271-000-002
DESIGNED BY	A. MOHAMMEDSDU	COUNTY	HARFORD		
DRAWN BY	M. RAFFLE	LOGMILE			
CHECKED BY	K. RINKER	TMS NO.	F-006		
FAP NO.	NONE	TOD NO.			
TS NO.		DRAWING	PSG	OF	N001
		SHEET NO.	666	OF	889



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